

What is Claimed is:

5 1. A push button apparatus, comprising a micro switch located on a baseboard, an interface structure mounted to the micro switch, a push button top cap having a bottom surface, and a compression spring located between the interface structure and the bottom surface of the push button top cap; push button top cap further including a protrusive hub extending from the bottom surface for housing a top section of the interface structure; characterized in that: the top section is hollow and includes at least one pair of independent and opposing upper arms extending upwards, each of the upper arms having an exterior surface which has a retaining jut formed thereon, the protrusive hub having a receiving opening of a selected height formed at a location corresponding to the respective retaining jut so as to have the retaining jut be restrictively slidably in the receiving opening for allowing the push button top cap to slide with respect to the top section of the interface structure while the top section engaging with the protrusive hub.

10 2. The push button apparatus of claim 1, wherein the interface structure has a cross section complementary with an inner contour cross section of the protrusive hub.

15 3. The push button apparatus of claim 2, wherein the cross section is a square.

20 4. The push button apparatus of claim 2, wherein the cross section is a circle.

25 5. The push button apparatus of claim 1, wherein the top section of the interface structure includes at least a sliding guide arm located between the upper arms to enhance the top section sliding steadily with respect to the protrusive hub.

6. A push button apparatus located on a base board, comprising:
 - a micro switch, located on the baseboard;
 - an interface structure, mounted to the micro switch, having at least one pair of independent and opposing elastic upper arms extending from a peripheral contour thereof, each of the upper arms having an outside surface which has a retaining jut formed thereon;
 - a push button top cap, having a bottom surface and a protrusive hub extending from the bottom surface for housing the upper arms of the interface structure, the protrusive hub having a receiving opening of a selected height formed at a location corresponding to the respective retaining jut; and
 - a compression spring, located between the interface structure and the bottom surface of the push button top cap;

wherein, when the upper arms of the interface structure engages with the protrusive hub, the retaining jut is restrictively slidably in the receiving opening to allow the push button top cap sliding with respect to the interface structure.

- 7. The push button apparatus of claim 6, wherein the interface structure has a sliding guide arm located between the upper arms to enhance the top section sliding steadily with respect to the protrusive hub.
- 8. The push button apparatus of claim 6, wherein the upper arms are formed on the interface structure in a graduation fashion.